

a9 28. A personal care product comprising a topsheet, a backsheet, and a distribution means, said distribution means comprising distribution piping and a connection means which permits the connection of a pump, wherein the distribution means facilitates air exchange in the product, thereby reducing the moisture encountered by skin of a wearer.

a10 30. The personal care product of Claim 28, further comprising a pump adapted to be actuated by manual or mechanically assisted means and force air into or draw air from the product in a region between the wearer's skin and the product.

31. The personal care product of Claim 30, wherein the pump is self-contained.

Please add new Claim 34 as follow:

a11 34. The absorbent article of Claim 1, further comprising a desiccant.

Remarks

Applicants acknowledge receipt of the Office Action mailed October 10, 2002. Applicants respectfully submit that the present Response and Amendment is a reply to every ground of objection or rejection raised in the Office Action and places the application in condition for allowance. The following remarks address the objections, rejections and comments made by the Examiner in the order that the objections, rejections and comments appear in the Office Action mailed October 10, 2002.

Assignment

In the Office Action, the Examiner noted that the assignment referred to in previous papers is not of record in the file. Applicants enclose with this response a copy of the assignment and the notice of recordation of assignment for the Examiner's file. If the Examiner notes any other paper that is missing from the Examiner's file, please let us know and we will provide a copy of the missing paper.

Prior Art Cited in the Specification

In the Office Action, the Examiner noted that references cited in the specification of the present application were not acknowledged because the references were not

submitted in an Information Disclosure Statement. Applicants submit with this response an Information Disclosure Statement including the references cited in the specification but not yet submitted in an IDS for the Examiner's consideration and acknowledgement.

Abstract

The Examiner objected to certain terminology in the Abstract in the Office Action. In this Response, Applicants amended the Abstract to remove the terminology that was objected to by the Examiner.

Drawing Objections and Related Specification Objections

In paragraph number 6 of the Office Action, the Examiner noted that the numeral **24** was used to describe two different elements, the outer surface of the bellows and the intake valve. All use of the numeral **24** to describe the intake valve have been deleted by an amendment in this Response.

In paragraph no. 6, the Examiner also noted that the specification states that valve **28** is opened upon inflation and closed upon deflation of the bellows. However, Figure 3 can be interpreted as showing the bellows in an expanded, inflated condition but still being inflated. Thus, valve **28** may still be open as illustrated. Applicants submit that the application and drawings are not necessarily consistent and that changes to the drawings are not necessary.

The Examiner also noted that numeral **32** as shown in Figure 5 does not appear to denote a connections means. Applicants submit herewith a proposed drawing correction for the Examiner's review and approval.

Objections to Drawings

In paragraph no. 7, the drawings were objected to because a topsheet, backsheet, connection means and bellows are not shown. In order to facilitate allowance of the present application, Applicants hereby submit a Substitute Sheet of drawings proposing changes to Figure 4 that are marked in red and that illustrate a topsheet **37** and a backsheet **38**. Applicants submit that support for the changes in the drawings can be found in at least the following passage which can be found in the first paragraph of the Background on page 1 of the present application. "The most basic design of all such articles typically includes a bodyside liner, an outercover and an absorbent core disposed between the bodyside liner and the outercover. Generally, the bodyside liner and the

outercover are sealed about the periphery so as to encapsulate the absorbent core and thus make it possible to entrap and retain any fluids contained within the absorbent core.” Applicants have also amended the specification on page 11 to include the following: “The diaper 36 includes a bodyside liner or topsheet 37 and an outercover or backsheet 39 which are sealed about the periphery so as to encapsulate an absorbent core (not shown).”

Applicants respectfully submit that connection means are shown as **32** on Figure 5 and bellows as **20** on Figure 4. Thus, the objections to the drawings are resolved by the proposed amendments to Figures 4 and 5.

Objections to the Disclosure

In paragraph no. 8, the Summary was objected to because the desiccant referred to in the Summary was not claimed. By this Response, Applicants have added a claim referring to a desiccant.

In paragraph no. 8, the Examiner objected to the use of the term “Starret” as a trademark. Applicants have capitalized the term “Starret” in this patent application.

In paragraph no. 8, the Examiner also objected to the use of the numerals **24**, **28** and **32**. Please see Applicants’ comments in the section above titled “Drawing Objections and Related Specification Objections”.

Response to Rejections under 35 U.S.C. § 112

The Examiner comments in paragraph no. 9 regarding the proper “means for” format are acknowledged. Applicants respectfully submit that legal interpretation of “means for” format claim scope is determined by the courts.

In paragraph no. 9, the Examiner questions whether it is clear that the pumping means referred to in Claim 1 is part of the claimed composition. Applicants submit that the pumping means referred to in Claim 1 is not part of the claimed absorbent article but is referred to to describe connection means capable of connecting to a pumping means. The connection means is a part of the claimed absorbent article of Claim 1 but the pumping means is not. By this Response, Claim 6 is amended to clarify that a pumping means is part of the claimed absorbent article of Claim 6 and Claims 7, 13, 16, 18 and 19 that depend therefrom.

By this Response, Claim 2 is amended to clarify that “the valving means allows air to be discharged into the article in a region between a wearer’s skin and **the article**” for which there is antecedent basis.

With regard to Claim 6, the terminology "manual or mechanically assisted" is used in Claim 6 to further modify the function of the claimed structure, i.e. the pumping means.

Claims 18 and 19 have been amended to positively recite and provide structural basis for "a pumping means that is an external pumping means".

In paragraph no. 9, the Examiner also questions whether it is clear that the pumping referred to in Claims 28 and 30 is part of the claimed personal care product. Applicants submit that the pumping referred to in Claims 28 and 30 is not part of the claimed personal care product but is referred to to describe connection means capable of connecting to a pump. The connection means is a part of the claimed personal care product of Claims 28 and 30 but the pump is not. Additionally, Claim 30 has been amended to replace the terms "absorbent article" and "article" with "product" for which there is antecedent basis.

Claim 31 has been amended to specify that the pump of Claim 31 is self-contained. And, Claims 28 and 30 were amended according to the Examiner's suggestions.

Response to Rejection under 35 U.S.C. §§ 102(e)

Claims 1, 2, 5-7, 13, 14, 16, 18-31 and 33 were rejected under 35 U.S.C §102(e) as being anticipated by U.S. Patent No. 6,454,749 to Lau et al. (hereinafter "Lau"). Although U.S. Patent No. 6,454,749 claims a personal care product that includes a one way valve that may include a personal care product of the present invention, U.S. Patent No. 6,454,749 fails to disclose, teach or suggest a personal care product or an absorbent article that includes "a connection means which permits the connection of a pumping means" or a pumping means. The connection means allows a source of air or any another gas, for example oxygen, to be connected to the personal care article. The air or other gas may then be distributed into the personal care article. In certain embodiments, air or another gas is supplied by a pumping means that may be a conventional pump, a bellows, a vacuum or other suction or evacuation device, a cylinder of air or an oxygen tank as disclosed on page 8 of the present patent application or any other means that can be used to pump or distribute air or another gas into the personal care article such as a tank of compressed air or compressed oxygen. U.S. Patent No. 6,454,749 fails to disclose, teach or suggest a pumping means or any of the

above-listed pumping means or a means for connecting a pumping means to a personal care article. Accordingly, Applicants respectfully request the Examiner to withdraw the rejections over U.S. Patent No. 6,454,749.

Conclusion

For the above-stated reasons, the application, figures and claims are believed to be in condition for allowance and a Notice of Allowance is respectfully requested. Should any questions arise with regard to this application the Examiner is encouraged to contact the undersigned at (770)-587-8620. Please charge any prosecutorial fees which are due to Kimberly-Clark Worldwide, Inc. deposit account number 11-0875.

Respectfully submitted,

J. Lau et al.

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CERTIFICATE OF MAILING

I, Christos S. Kyriakou, hereby certify that on March 10, 2003 this document is being deposited with the United States Postal Service as first-class mail, postage prepaid, in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231.

By: Christos S. Kyriakou
Christos S. Kyriakou

MARKED UP COPY OF AMENDMENTS OFR EXAMINER'S CONVENIENCE

On page 5, the following changes were made:

Material caliper (thickness): The caliper of a material is a measure of thickness and is measured at 0.05 psi with a [Starret]STARRET-type bulk tester, in units of millimeters.

On page 11, first full paragraph beginning with "Figure 4", the following additions were made.:

Figure 4 shows an embodiment of the present invention with a self-contained external bellows attached to the product. Figure 4 shows an outside view of one example of a diaper 36 with a bellows 20 attached thereto. The diaper 36 includes a bodyside liner or topsheet 37 and an outercover or backsheet 39 which are sealed about the periphery so as to encapsulate an absorbent core (not shown). The bellows 20 is located in the waist area on the exterior of the diaper 36 between the attachment areas 38 for the "ears" 40 of the diaper 36. The intake valving 42 of the bellows 20 is located on the front of the diaper 36. Figure 5 shows a view of the inside of a diaper showing the discharge valving 44 which is located on the inside (toward the wearer) of the product. Connection means 32 and valving or distribution means 34 are also shown in Figure 5.

On page 11, last paragraph bridging to page 12, the following deletions were made:

In use, in the case of a diaper or incontinence garment for example, the waist bellows deflates when the wearer or a third party compresses the bellows. Since the intake valve [24] will close as the bellows is compressed, the deflating bag pushes its air out of the second one way (discharge) valve 28 and into the garment. As pressure on the bag of the bellows is released, the bag will begin to inflate pulling air into a first one way (intake) valve [24] and the bag from the outside. It is envisioned that a mechanically assisted pumping means may also be used. Desirably a small battery operated pump unit would be used, the pump unit would have an intake valve and an outlet valve. The unit may be programmed by the wearer, a third party or may be pre-programmed such that at the desired interval, the unit would cause air to enter the system via the unit intake valve, pass through the outlet valve of the unit, through optional tubing if necessary, and through the connection means of the absorbent article and into the desired regions of the article. One skilled in the art would recognize the pump unit could be programmed so that a specific flow rate of air is passed into the absorbent article. One skilled in the art would also recognize that any other

commercially available pump or pumping means which would accomplish the desired task of passing air into the article could be used. Smaller units could be attached to the personal care product by any suitable attachment means such as a hook and loop means or to the wearer's clothing by way of a clip or the like. It is contemplated that pumps which are similar in size and shape to insulin pumps, which some diabetics must use, could be used and desirably would be of minimal hindrance to the wearer. One skilled in the art would recognize that while a smaller unit would be desired so as not to restrict the wearer's motion or otherwise hinder the wearer's movement, larger, less portable or non-portable units could also be used. Such less portable units (e.g. large air tanks, compressors, or permanent air supplies or vacuum lines) are more likely to be used in a hospital setting or the like. As indicated above, other alternative pumping means, such as air lines commonly found in hospitals or similar care facilities, would also be suitable.

On page 12 in the paragraph bridging to page 13, the following additions and deletions were made:

Although only a few exemplary embodiments of this invention have been described in detail above, those skilled in the art will readily appreciate that many modifications are possible in the exemplary embodiments without materially departing from the novel teachings and advantages of this invention. Accordingly, all such modifications are intended to be included within the scope of this invention as defined in the following claims. [In the claims,]It is Applicants' intention that means plus function claims are intended to cover the structures described herein as performing the recited function and not only structural equivalents but also equivalent structures as permitted under current laws. Thus although a nail and a screw may not be structural equivalents in that a nail employs a cylindrical surface to secure wooden parts together, whereas a screw employs a helical surface, in the environment of fastening wooden parts, a nail and a screw may be equivalent structures.

On page 17, the following additions and deletions were made:

ABSTRACT OF THE DISCLOSURE

[The present invention relates to an] An absorbent article [comprising] that includes a topsheet, a backsheet, [and] a valving means, [the valving means comprising at least one one-way valve] and a connection means which permits the connection of a pumping means[, wherein the] is described. The valving means allows air to be

distributed into one or more regions of the article[. The valving means of the article allows air to be discharged into the article in a region]], for example, between a wearer's skin and the [product] article.

The claims were amended as follows:

2. The absorbent article of Claim 1, wherein the valving means allows air to be discharged into the article in a region between a wearer's skin and the [product] article.

6. The absorbent article of Claim 1[,] further comprising a pumping means wherein the pumping means comprises [any] a manual or mechanically assisted means for passing air through the connection means of the absorbent article.

18. The absorbent article of Claim 6, wherein the pumping means is an external pumping means that is self-contained.

19. The absorbent article of Claim 6, wherein the pumping means is an external pumping means that is attached to the article.

28. A personal care product comprising a topsheet, a backsheet, and a distribution means, said distribution means comprising distribution piping and a connection means which permits the connection of a pump, wherein the distribution means facilitates air exchange in the product, thereby reducing the moisture encountered by [the] skin of a wearer.

30. The personal care product of Claim 28, further comprising a pump adapted to be actuated by manual or mechanically assisted means and force air into or draw air from the [absorbent article] product in a region between [a] the wearer's skin and the [article] product.

31. The personal care product of Claim 30, wherein the pump [may be] is self-contained.

The following new claim was added.

34. (New) The absorbent article of Claim 1, further comprising a desiccant.